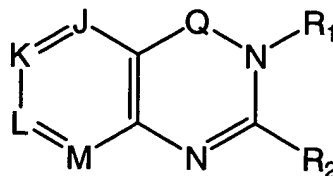


What is claimed is:

1. A compound comprising Formula XXXVII:



XXXVII

wherein

Q is selected from the group consisting of CO, CS, SO, SO₂, or C=NR₉;

J, K, L, and M are each independently selected from the group of CR₁₂ and N, provided that at least one of K and L is CR₁₂ where R₁₂ is not hydrogen;

R₁ is -ZR_m, where Z is a moiety providing 1-6 atom separation between R_m and the ring to which R₁ is attached, and R_m is selected from the group consisting of a substituted or unsubstituted (C₃₋₇)cycloalkyl and aryl;

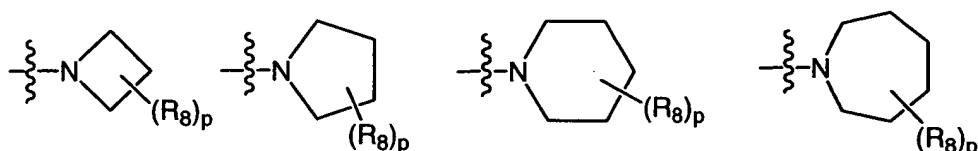
R₂ is -UV, where U is a moiety providing 1-6 atom separation between V and the ring to which R₂ is attached and V comprises a basic nitrogen atom that is capable of interacting with a carboxylic acid side chain of an active site residue of a protein;

R₉ is hydrogen or is selected from the group consisting of alkyl, cycloalkyl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each substituted or unsubstituted; and

each R₁₂ is hydrogen or is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

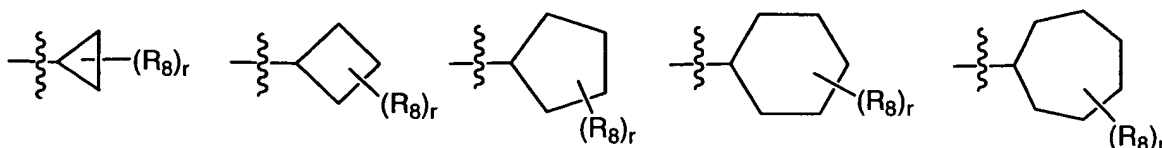
2. A compound according to claim 1, wherein V is selected from the group consisting of a primary, secondary or tertiary amine, a heterocycloalkyl comprising a nitrogen ring atom, and a heteroaryl comprising a nitrogen ring atom

3. A compound according to claim 1, wherein V is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring wherein at least one substituent is selected from the group consisting of a primary, secondary or tertiary amine, a heterocycloalkyl comprising a nitrogen ring atom, and a heteroaryl comprising a nitrogen ring atom.
4. A compound according to claim 1, wherein the basic nitrogen of V is separated from the ring atom to which R₂ is attached by between 1-5 atoms.
5. A compound according to claim 1, wherein the basic nitrogen of V forms part of a primary, secondary or tertiary amine.
6. A compound according to claim 1, wherein the basic nitrogen of V is a nitrogen ring atom of a heterocycloalkyl comprising a nitrogen ring atom or a heteroaryl comprising a nitrogen ring atom.
7. A compound according to claim 1, wherein R₂ is selected from the group consisting of



wherein p is 0-12 and each R₈ is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, cyano, nitro, hydroxy, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, alkoxy, carbonyl group, imino group, sulfonyl group and sulfinyl group, each substituted or unsubstituted, with the proviso that at least one R₈ serves as V.

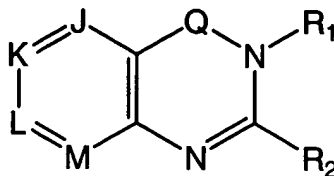
8. A compound according to claim 7, wherein at least one R_8 is a primary, secondary or tertiary amine.
9. A compound according to claim 7, wherein at least one R_8 is a substituted or unsubstituted heterocycloalkyl comprising a nitrogen ring atom or a substituted or unsubstituted heteroaryl comprising a nitrogen ring atom.
10. A compound according to claim 7, wherein at least one R_8 is selected from the group consisting of $-NH_2$, $-NH(C_{1-5} \text{ alkyl})$, $-N(C_{1-5} \text{ alkyl})_2$, piperazine, imidazole, and pyridine.
11. A compound according to claim 1, wherein R_2 is selected from the group consisting of



wherein r is 0-13 and each R_8 is independently selected from the group consisting of halo, perhalo(C_{1-10})alkyl, CF_3 , cyano, nitro, hydroxy, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, alkoxy, carbonyl group, imino group, sulfonyl group and sulfinyl group, each substituted or unsubstituted, with the proviso that at least one R_8 serves as V.

12. A compound according to claim 11, wherein at least one R_8 is a primary, secondary or tertiary amine.
13. A compound according to claim 11, wherein at least one R_8 is a substituted or unsubstituted heterocycloalkyl comprising a nitrogen ring atom or a substituted or unsubstituted heteroaryl comprising a nitrogen ring atom.

14. A compound according to claim 11, wherein at least one R_8 is selected from the group consisting of $-NH_2$, $-NH(C_{1-5} \text{ alkyl})$, $-N(C_{1-5} \text{ alkyl})_2$, piperazine, imidazole, and pyridine.
15. A compound according to claim 1, wherein R_2 is selected from the group consisting of 3-amino-piperidin-1-yl, 3-aminomethyl-pyrrolidin-1-yl, azetidin-1-yl, 3-aminoazetidin-1-yl, pyrrolidin-1-yl, 3-aminocyclopent-1-yl, 3-aminomethylcyclopent-1-yl, 3-aminomethylcyclohex-1-yl, hexahydroazepin-1-yl, 3-aminohexahydroazepin-1-yl, 3-amino-cyclohex-1-yl, piperazin-1-yl, homopiperazin-1-yl, 3-amino-pyrrolidin-1-yl, and R-3-aminopiperidin-1-yl, each substituted or unsubstituted.
16. A compound according to claim 1, wherein R_2 is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring.
17. A compound according to claim 16, wherein R_1 is $-ZR_m$, where Z is a moiety providing 1-6 atom separation between R_m and the ring to which R_1 is attached, and R_m is selected from the group consisting of a substituted or unsubstituted (C_{3-7}) cycloalkyl and aryl.
18. A compound according to claim 1, wherein R_1 is $-ZR_m$, where Z is a moiety providing 1-6 atom separation between R_m and the ring to which R_1 is attached, and R_m is selected from the group consisting of a substituted or unsubstituted (C_{3-7}) cycloalkyl and aryl.
19. A compound according to claim 1, wherein at least one R_{12} is halogen.
20. A compound according to claim 1, wherein at least one R_{12} is fluorine.
21. A compound comprising Formula XXXVIII:



XXXVIII

wherein

Q is selected from the group consisting of CO, CS, SO, SO₂, or C=NR₉;

J, K, L, and M are each independently selected from the group of CR₁₂ and N, provided that at least one of K and L is CR₁₂ where R₁₂ is not hydrogen;

R₁ is -ZR_m, where Z is a moiety providing 1-6 atom separation between R_m and the ring to which R₁ is attached, and R_m is selected from the group consisting of a substituted or unsubstituted (C₃₋₇)cycloalkyl and aryl;

R₂ is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring;

R₉ is hydrogen or is selected from the group consisting of alkyl, cycloalkyl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each substituted or unsubstituted; and

each R₁₂ is hydrogen or is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

22. A compound according to claim 21, wherein Z provides 1-3 atom separation between R_m and the ring.

23. A compound according to claim 21, wherein Z provides 1 atom separation between R_m and the ring.

24. A compound according to claim 23, wherein the 1 atom separation is provided by an atom selected from the group consisting of C, N, O, and S.
25. A compound according to claim 23, wherein the 1 atom separation is provided by a carbon atom.
26. A compound according to claim 23, wherein the 1 atom separation is provided by an oxygen atom.
27. A compound according to claim 23, wherein the 1 atom separation is provided by a nitrogen atom.
28. A compound according to claim 21, wherein Z is selected from the group consisting of -CH₂-, -CH₂CH₂-, -CH₂CH₂CH₂-, -C(O)-, -CH₂C(O)-, -C(O)CH₂-, -CH₂-C(O)CH₂-, -C(O)CH₂CH₂-, -CH₂CH₂C(O)-, -O-, -OCH₂-, -CH₂O-, -CH₂OCH₂-, -OCH₂CH₂-, -CH₂CH₂O-, -N(CH₃)-, -NHCH₂-, -CH₂NH-, -CH₂NHCH₂-, -NHCH₂CH₂-, -CH₂CH₂NH-, -NH-C(O)-, -NCH₃-C(O)-, -C(O)NH-, -C(O)NCH₃-, -NHC(O)CH₂-, -C(O)NHCH₂-, -C(O)CH₂NH-, -CH₂NHC(O)-, -CH₂C(O)NH-, -NHCH₂C(O)-, -S-, -SCH₂-, -CH₂S-, -SCH₂CH₂-, -CH₂SCH₂-, -CH₂CH₂S-, -C(O)S-, -C(O)SCH₂-, -CH₂C(O)S-, -C(O)CH₂S-, and -CH₂SC(O)-, each substituted or unsubstituted.
29. A compound according to claim 21, wherein Z is selected from the group consisting of -CH₂-, -C(O)-, -C(S)-, -C(NH)-, -C(NR₉)-, -O-, -N(H)-, -N(R₉)-, and -S-.
30. A compound according to claim 21, wherein R_m is a substituted or unsubstituted -(C₃₋₇)cycloalkyl.
31. A compound according to claim 21, wherein R_m is a substituted or unsubstituted aryl.
32. A compound according to claim 21, wherein R_m is a substituted or unsubstituted phenyl.

33. A compound according to claim 21, wherein R_m is selected from the group consisting of (2-cyano)phenyl, (3-cyano)phenyl, (2-hydroxy)phenyl, (3-hydroxy)phenyl, (2-alkenyl)phenyl, (3-alkenyl)phenyl, (2-alkynyl)phenyl, (3-alkynyl)phenyl, (2-nitro)phenyl, (3-nitro)phenyl, (2-carboxy)phenyl, (3-carboxy)phenyl, (2-carboxamido)phenyl, (3-carboxamido)phenyl, (2-sulfonamido)phenyl, (3-sulfonamido)phenyl, (2-tetrazolyl)phenyl, (3-tetrazolyl)phenyl, (2-aminomethyl)phenyl, (3-aminomethyl)phenyl, (2-amino)phenyl, (3-amino)phenyl, (2-hydroxymethyl)phenyl, (3-hydroxymethyl)phenyl, (2-phenyl)phenyl, (3-phenyl)phenyl, (2-CONH₂)phenyl, (3-CONH₂)phenyl, (2-CONH(C₁₋₇)alkyl)phenyl, (3-CONH(C₁₋₇)alkyl)phenyl, (2-CO₂(C₁₋₇)alkyl)phenyl, (3-CO₂(C₁₋₇)alkyl)phenyl, -NH₂, -OH, -(C₃₋₇)alkyl, -alkene, -alkyne, -CCH, -(C₃₋₇)cycloalkyl, and -aryl, each substituted or unsubstituted.

34. A compound according to claim 21, wherein R_1 is -OR₁₁, where R₁₁ is selected from the group consisting of substituted or unsubstituted alkyl, cycloalkyl, aryl, heteroaryl, heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl.

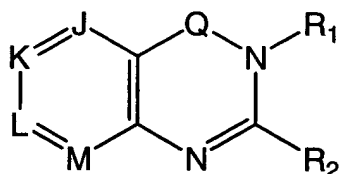
35. A compound according to claim 21, wherein Z is a carbonyl.

36. A compound according to claim 21, wherein R_1 is selected from the group consisting of -(CH₂)-(2-cyano)phenyl, -(CH₂)-(3-cyano)phenyl, -(CH₂)-(2-hydroxy)phenyl, -(CH₂)-(3-hydroxy)phenyl, -(CH₂)-(2-alkenyl)phenyl, -(CH₂)-(3-alkenyl)phenyl, -(CH₂)-(2-alkynyl)phenyl, -(CH₂)-(3-alkynyl)phenyl, -(CH₂)-(2-nitro)phenyl, -(CH₂)-(3-nitro)phenyl, -(CH₂)-(2-carboxy)phenyl, -(CH₂)-(3-carboxy)phenyl, -(CH₂)-(2-carboxamido)phenyl, -(CH₂)-(3-carboxamido)phenyl, -(CH₂)-(2-sulfonamido)phenyl, -(CH₂)-(3-sulfonamido)phenyl, -(CH₂)-(2-tetrazolyl)phenyl, -(CH₂)-(3-tetrazolyl)phenyl, -(CH₂)-(2-aminomethyl)phenyl, -(CH₂)-(3-aminomethyl)phenyl, -(CH₂)-(2-amino)phenyl, -(CH₂)-(3-amino)phenyl, -(CH₂)-(2-hydroxymethyl)phenyl, -(CH₂)-(3-hydroxymethyl)phenyl, -(CH₂)-(2-phenyl)phenyl, -(CH₂)-(3-phenyl)phenyl, -(CH₂)-(2-CONH₂)phenyl, -(CH₂)-(3-CONH₂)phenyl, -(CH₂)-(2-CONH(C₁₋₇)alkyl)phenyl, -(CH₂)-(3-CONH(C₁₋₇)alkyl)phenyl,

-(CH₂)-(2-CO₂(C₁₋₇)alkyl)phenyl, -(CH₂)-(3-CO₂(C₁₋₇)alkyl)phenyl, -CH₂-NH₂, -CH₂-OH, -CH₂-(C₃₋₇)alkyl, -CH₂-alkene, -CH₂-alkyne, -CH₂-CCH, -CH₂-(C₃₋₇)cycloalkyl, and -CH₂-aryl, each substituted or unsubstituted.

37. A compound according to claim 21, wherein R₁ is selected from the group consisting of -(C₁)alkyl-aryl, -(C₁)alkyl-bicycloaryl, -aminoaryl, -aminoheteroaryl, -aminobicycloaryl, -aminoheterobicycloaryl, -O-aryl, -O-heteroaryl, -O-bicycloaryl, -O-heterobicycloaryl, -(S)-aryl, -(S)-heteroaryl, -(S)-bicycloaryl, -S-heterobicycloaryl, -C(O)-aryl, -C(O)-heteroaryl, -C(O)-bicycloaryl, -C(O)-heterobicycloaryl, -C(S)-aryl, -C(S)-heteroaryl, -C(S)-bicycloaryl, -C(S)-heterobicycloaryl, -S(O)-aryl, -S(O)-heteroaryl, -S(O)-bicycloaryl, -SO₂-heterobicycloaryl, -SO₂-aryl, -SO₂-heteroaryl, -SO₂-bicycloaryl, -SO₂-heterobicycloaryl, -C(NR₉)-aryl, -C(NR₉)-heteroaryl, -C(NR₉)-bicycloaryl, -C(NR₉)-heterobicycloaryl, each substituted or unsubstituted.

38. A compound comprising Formula XXXIX:



XXXIX

wherein

Q is selected from the group consisting of CO, CS, SO, SO₂, or C=NR₉;

J, K, L, and M are each independently selected from the group of CR₁₂ and N, provided that at least one of K and L is CR₁₂ where R₁₂ is not hydrogen;

R₁ is selected from the group consisting of a substituted or unsubstituted 3, 4, 5, 6 or 7 membered ring;

R₂ is -UV, where U is a moiety providing 1-6 atom separation between V and the ring to which R₂ is attached and V comprises a basic nitrogen atom that is capable of interacting with a carboxylic acid side chain of an active site residue of a protein;

R₉ is hydrogen or is selected from the group consisting of alkyl, cycloalkyl,

heterocycloalkyl, arylalkyl, heteroarylalkyl, bicycloaryl, and heterobicycloaryl, each substituted or unsubstituted; and

each R₁₂ is hydrogen or is independently selected from the group consisting of halo, perhalo(C₁₋₁₀)alkyl, CF₃, alkyl, aryl, heteroaryl, aminosulfonyl, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, aryloxy, heteroaryloxy, arylalkyl, heteroarylalkyl, cycloalkyl, heterocycloalkyl, amino, thio, cyano, nitro, alkoxy, a carbonyl group, imine group, sulfonyl group and sulfinyl group, each substituted or unsubstituted.

39. A compound according to claim 38, wherein U provides 1-4 atom separation between V and the ring.

40. A compound according to claim 38, wherein U provides 1-3 atom separation between V and the ring.

41. A compound according to claim 38, wherein U is selected from the group consisting of -CH₂-, -CH₂CH₂-, -CH₂CH₂CH₂-, -C(O)-, -CH₂C(O)-, -C(O)CH₂-, -CH₂-C(O)CH₂-, -C(O)CH₂CH₂-, -CH₂CH₂C(O)-, -O-, -OCH₂-, -CH₂O-, -CH₂OCH₂-, -OCH₂CH₂-, -CH₂CH₂O-, -N(CH₃)-, -NHCH₂-, -CH₂NH-, -CH₂NHCH₂-, -NHCH₂CH₂-, -CH₂CH₂NH-, -NH-C(O)-, -NCH₃-C(O)-, -C(O)NH-, -C(O)NCH₃-, -NHC(O)CH₂-, -C(O)NHCH₂-, -C(O)CH₂NH-, -CH₂NHC(O)-, -CH₂C(O)NH-, -NHCH₂C(O)-, -S-, -SCH₂-, -CH₂S-, -SCH₂CH₂-, -CH₂SCH₂-, -CH₂CH₂S-, -C(O)S-, -C(O)SCH₂-, -CH₂C(O)S-, -C(O)CH₂S-, and -CH₂SC(O)-, each substituted or unsubstituted.

42. A compound according to claim 38, wherein U is selected from the group consisting of -CH₂-, -CHR₉-, -C(R₉)(R₉)-, -O-, -N(H)-, -N(R₉)-, and -S-.

43. A compound according to claim 38, wherein V is selected from the group consisting of a primary, secondary or tertiary amine, a heterocycloalkyl comprising a nitrogen ring atom, and a heteroaryl comprising a nitrogen ring atom

44. A compound according to claim 38, wherein the basic nitrogen of V is separated from the ring atom to which R₂ is attached by between 1-5 atoms.
45. A compound according to claim 38, wherein the basic nitrogen of V forms part of a primary, secondary or tertiary amine.
46. A compound according to claim 38, wherein the basic nitrogen of V is a nitrogen ring atom of a heterocycloalkyl comprising a nitrogen ring atom or a heteroaryl comprising a nitrogen ring atom.
47. A compound according to claim 38, wherein R₁ is a substituted or unsubstituted aryl.
48. A compound according to claim 38, wherein R₁ is a substituted or unsubstituted phenyl.
49. A compound according to claim 38, wherein R₁ is a substituted or unsubstituted heteroaryl.